

00169.001918.

PATENT APPLICATION



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

JULIE RAE KOWALD

Application No.: 09/730,573

Filed: December 7, 2000

For: VISUAL LANGUAGE  
CLASSIFICATION SYSTEM

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Examiner: S. Ahmed  
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Group Art Unit: 2624  
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July 19, 2007

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

REQUEST TO WITHDRAW ERRONEOUS NOTICE OF ABANDONMENT

Sir:

Applicant has received a Notice of Abandonment dated April 19, 2007 indicating that the above application became abandoned for failure to respond to the Office Action dated July 27, 2006. However, a response was timely filed as set forth below and therefore, Applicant requests that the Notice of Abandonment be withdrawn and the application be returned to pending status.

I hereby certify that this correspondence is being deposited with the United States Postal Service as first-class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on:

July 19, 2007  
(Date of Deposit)

John D. Magluyan, Reg. No. 56,867  
(Name of Attorney for Applicant)

  
Signature

July 19, 2007  
Date of Signature

Applicant respectfully submits that a response to the July 27, 2006 Office Action was timely filed, on November 27, 2006. In this regard, Applicant's representative filed, by Certificate Of Mailing, an Amendment, a Petition For Extension Of Time and Letter Transmitting Formal Drawings (copies attached as Exhibit A).

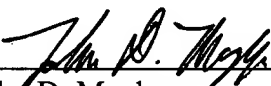
Also enclosed please find a copy of a return receipt postcard bearing the official Patent and Trademark Office stamp confirming receipt on December 1, 2006.

Furthermore, Applicant's representative accessed the USPTO's Public PAIR website on July 19, 2007, and located the above-mentioned Amendment, Petition For Extension Of Time and Letter Transmitting Formal Drawings on the Image File Wrapper for the subject application.

In view of the foregoing, Applicant requests that the Notice of Abandonment be withdrawn and the application be returned to pending status.

Applicant's undersigned attorney may be reached in our Costa Mesa, California office at (714) 540-8700. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,

  
\_\_\_\_\_  
John D. Magluyan  
Attorney for Applicant  
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PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:	)	
	:	Examiner: S. Ahmed
JULIE RAE KOWALD	)	
	:	Group Art Unit: 2624
Application No.: 09/730,573	)	
	:	
Filed: December 7, 2000	)	
	:	
For: VISUAL LANGUAGE	)	
CLASSIFICATION	:	
SYSTEM	)	November 27, 2006

Mail Stop Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

AMENDMENT

Sir:

In response to the Office Action dated July 27, 2006, the term for responding to which having been extended to November 27, 2006 by the accompanying Petition For Extension Of Time, please amend the above-identified application as follows:

I hereby certify that this correspondence is being deposited with the United States Postal Service as first-class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on:

November 27, 2006  
(Date of Deposit)

John D. Magluyan, Reg. No. 56,867  
(Name of Attorney for Applicant)

  
Signature

November 27, 2006  
Date of Signature

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IN THE DRAWINGS:

In response to the Examiner's objections to the drawings, Applicant submits herewith Replacement Drawing Sheets, in order to attend to such objections.

Approval of the Replacement Drawing Sheets is respectfully requested.

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## IN THE CLAIMS:

Please amend Claims 1, 16, 21, 33, 37, 42, 45, 59, 62, 84 and 86 as shown below. The claims, as pending in the subject application, now read as follows:

1. (Currently amended) A method for automated classification of a digital image, said method comprising the steps of:
  - analyzing the digital image for the presence of a human face;
  - determining a size of the located face with respect to a size of the image;
  - classifying the digital image according to one of at least three ~~a number of~~ shot types based on the relative size of the face with respect to the image ~~independently of~~ ~~a distance measure between the face and a capture device that recorded the digital image;~~
  - and
  - storing the classification of the digital image as metadata associated with the digital image.
2. (Previously presented) A method according to claim 1, wherein the digital image is classified using a shot type term which provides information about an intention of a photographer who captured the image.
3. (Previously presented) A method according to claim 1 or 2, wherein the image is classified as a far-shot if the size of the located face is substantially less than the size of the image.

4. (Previously presented) A method according to claim 1 or 2, wherein the image is classified as a close-up where the size of the located face substantially corresponds with the size of the image.

5. (Previously presented) A method according to claim 1 or 2, wherein the image is classified as an extreme close-up where only a part of the located face appears within the image.

6. (Previously presented) A method according to claim 1 or 2, wherein the classifying step comprises associating a size of the located face with a set of predetermined thresholds for a size of a human face image.

7. (Previously presented) A method according to claim 1 or 2, wherein the image is classified as a far shot if the image contains a face and the size of the located face is below a first predetermined threshold compared to the size of the image.

8. (Previously presented) A method according to claim 7, wherein the image is classified as an extreme close-up if the size of the located face is above a second predetermined threshold compared to the size of the image.

9. (Previously presented) A method according to claim 8, wherein the image is classified as a close-up if the size of the located face is below said second

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predetermined threshold and above a third predetermined threshold compared to the size of the image.

10. (Previously presented) A method according to claim 9, wherein the image is classified as a medium shot if the size of the located face is greater than the first predetermined threshold and less than the third predetermined threshold.

11. (Previously presented) A method according to claim 1, wherein said analyzing step comprises interpreting information provided with the image.

12. (Previously presented) A method according to claim 11, wherein the image comprises a frame of a digital video sequence of images.

13. (Previously presented) A method according to claim 12, wherein the information is associated with other frames of the sequence.

14. (Previously presented) A method according to claim 1, wherein said analyzing step comprises detecting one or more regions of the image at which skin colored pixels are located in order to locate the face.

15. (Previously presented) A method according to claim 1, wherein said determining step includes approximating the size of the located face by a height and width of a bounding rectangle that encloses the face.



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16. (Currently amended) A method for automated classification of a digital image, said method comprising the steps of:

analyzing the digital image for the presence of a human face;

determining a position of the located face with respect to a frame of the image;

classifying the digital image according to one of at least three ~~a number of~~ shot types based on the relative position of the face with respect to the image frame ~~independently of a distance measure between the face and a capture device that recorded the digital image;~~ and

storing the classification of the digital image as metadata associated with the digital image.

17. (Previously presented) A method according to claim 16, wherein the digital image is classified using a shot type term which provides information about an intention of a photographer who captured the image.

18. (Previously presented) A method according to claim 16 or 17, wherein the image is classified as a high-shot if the position of the located face is substantially toward a bottom of the image frame.

19. (Previously presented) A method according to claim 16 or 17, wherein the image is classified as an eye-level shot where the position of the located face substantially corresponds with a center of the image frame.

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20. (Previously presented) A method according to claim 16 or 17, wherein the image is classified as a low shot where the position of the located face is substantially toward a top of the image frame.

21. (Currently Amended) A method according to claim 16 or 17, wherein the image is classified as a left shot where the position of the located face is substantially toward a right hand side of the image frame ~~frame~~.

22. (Previously presented) A method according to claim 16 or 17, wherein the image is classified as a right shot where the position of the located face is substantially toward a left hand side of the image frame.

23. (Previously presented) A method according to claim 16 or 17, wherein the image is classified as a low shot where the position of the located face is substantially toward a top of the image frame.

24. (Previously presented) A method according to claim 16, wherein said analyzing step comprises interpreting information provided with the image.

25. (Previously presented) A method according to claim 16, wherein the image comprises a frame of a digital video sequence of images.

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26. (Previously presented) A method according to claim 25, wherein the information is associated with other frames of the sequence.

27. (Previously presented) A method according to claim 16, further comprising the steps of:

detecting an edge within the image;

determining an angle of inclination between the edge and an axis of the image frame; and

classifying the image as a Dutch shot where the angle of inclination is between predetermined angles of inclination.

28. (Previously presented) A method according to claim 27, wherein the predetermined angles of inclination comprise 30 and 60 degrees.

29. (Previously presented) A method according to claim 16, further comprising the steps of:

analyzing the image for the presence of a predetermined non-human component;

assessing the predetermined component with respect to at least one further criterion; and

where that further criterion is met, classifying the image based upon the presence of the predetermined component.

30. (Previously presented) A method according to claim 29, wherein the predetermined component comprises a color of a distinct region of the image.

31. (Previously presented) A method according to claim 29, wherein the criterion comprises at least a relative motion of the predetermined component within the image.

32. (Previously presented) A method of processing an input sequence of digital images, said method comprising the steps of:

classifying each digital image of the sequence using a method according to claim 1; and

editing the sequence using the classification to form an output sequence of digital images.

33. (Currently Amended) A method according to claim 32, wherein said editing step comprises applying an edit function to each image of the input sequence, those ones of the images not satisfying the edit function being omitted from the output sequence, [[,]]

34. (Previously presented) A method according to claim 32, wherein said editing step comprises establishing an editing template for the sequence, each edit function forming a component of the template and corresponding to one of the image classifications.

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35. (Previously presented) A method according to claim 33, wherein the edit function comprises at least one effect for application to the image, the effect being selected from the group consisting of visual effects and audible effects.

36. (Previously presented) A method according to claim 35, wherein the visual effects are selected from the group consisting of reproduction speed variation, zooming, blurring, and color variation.

37. (Currently amended) An apparatus for automated classification of a digital image, said apparatus comprising:

means for analyzing the digital image for the presence of a human face;

means for determining a size of the located face with respect to a size of the image;

means for classifying the digital image according to one of at least three ~~a number of~~ shot types based on the relative size of the face with respect to the image ~~independently of a distance measure between the face and a capture device that recorded said digital image;~~ and

means for storing the classification of the digital image as metadata associated with the digital image.

38. (Previously presented) An apparatus according to claim 37, wherein:

(i) the image is classified as a far-shot if the size of the located face is substantially less than the size of the image;

(ii) the image is classified as a close-up where the size of the located face substantially corresponds with the size of the image; and

(iii) the image is classified as an extreme close-up where only a part of the located face appears within the image.

39. (Previously presented) An apparatus according to claim 37, wherein said means for classifying associates a size of the located face with a set of predetermined thresholds for a size of a human face image.

40. (Previously presented) An apparatus according to claim 39, wherein:

(i) the image is classified as a far-shot if the image contains a face and the size of the located face is below a first predetermined threshold compared to the size of the image;

(ii) the image is classified as an extreme close-up if the size of the located face is above a second predetermined threshold compared to the size of the image;

(iii) the image is classified as a close-up if the size of the located face is below the second predetermined threshold and above a third predetermined threshold compared to the size of the image; and

(iv) the image is classified as a medium shot if the size of the located face is greater than the first predetermined threshold and less than the third predetermined threshold.

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41. (Previously presented) An apparatus according to claim 37, wherein said analyzing comprises interpreting information provided with the image.

42. (Currently Amended) An apparatus according to claim 41, wherein the image comprises a frame of a digital video sequence of images. [[,]]

43. (Previously presented) An apparatus according to claim 41, wherein said means for analyzing detects one or more regions of the image at which skin colored pixels are located in order to locate the face.

44. (Previously presented) An apparatus according to claim 43, wherein said means for determining approximates the size of the located face by a height and width of a bounding rectangle that encloses the face.

45. (Currently amended) An apparatus for automated classification of a digital image, said apparatus comprising:

means for analyzing the digital image for the presence of a human face;

means for determining a position of the located face with respect to a frame of the image;

means for classifying the digital image according to one of at least three ~~a number of~~ shot types based on the relative position of the face with respect to the image frame ~~independently of a distance measure between the face and a capture device that recorded said digital image;~~ and

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means for storing the classification of the digital image as metadata associated with the digital image.

46. (Previously presented) An apparatus according to claim 45, wherein:

(i) the image is classified as a high-shot if the position of the located face is substantially toward a bottom of the image frame;

(ii) the image is classified as an eye-level shot where the position of the face substantially corresponds with a center of the image frame;

(iii) the image is classified as a low shot where the position of the located face is substantially toward a top of the image frame;

(iv) the image is classified as a left shot where the position of the located face is substantially toward a right hand side of the image frame; and

(v) the image is classified as a right shot where the position of the located face is substantially toward a left hand side of the image frame.

47. (Previously presented) An apparatus according to claim 46, wherein said analyzing comprises interpreting information provided with the image.

48. (Previously presented) An apparatus according to claim 46, wherein the image comprises a frame of a digital video sequence of images.

49. (Previously presented) An apparatus according to claim 48, wherein the information is associated with other frames of the sequence.



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50. (Previously presented) An apparatus according to claim 45, further comprising:

- means for detecting an edge within the image;
- means for determining an angle of inclination between the edge and an axis of said image frame; and
- means for classifying the image as a Dutch shot where the angle of inclination is between predetermined angles of inclination.

51. (Previously presented) An apparatus according to claim 37, further comprising:

- means for analyzing the image for the presence of a predetermined non-human component;
- means for assessing the predetermined component with respect to at least one further criterion; and
- where that further criterion is met, classifying the image based upon the presence of the predetermined component.

52. (Previously presented) An apparatus according to claim 51, wherein the predetermined component comprises a color of a distinct region of the image.

53. (Previously presented) An apparatus according to claim 51, wherein the further criterion comprises at least a relative motion of the predetermined component within the image.

54. (Previously presented) An apparatus for processing a sequence of digital images, said apparatus comprising:

classification apparatus according to claim 37 for determining a shot type classification for each digital image of the sequence; and

means for editing the sequence using the shot type classification to form an output sequence of digital images.

55. (Previously presented) An apparatus according to claim 54, wherein the editing comprises applying an edit function to each image of the input sequence, those ones of the images not satisfying the edit function being omitted from the output sequence.

56. (Previously presented) An apparatus according to claim 55, wherein the editing comprises establishing an editing template for the sequence, each edit function forming a component of the template and corresponding to one of the image classifications.

57. (Previously presented) An apparatus according to claim 56, wherein the edit function comprises at least one effect for application to the image, the effect being selected from the group consisting of visual effects and audible effects.

58. (Previously presented) An apparatus according to claim 57, wherein the visual effects are selected from the group consisting of reproduction speed variation, zooming, blurring, and color variation.

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59. (Currently amended) A computer readable medium incorporating a computer program product operable upon computer apparatus for automated classification of a digital image, said computer program product comprising;

code for analyzing the digital image for the presence of a human face;

code for determining a size of the located face with respect to a size of the image;

code for classifying the digital image according to one of at least three ~~a number of shot types based on the relative size of the face with respect to the image independently of a distance measure between the face and a capture device that recorded the digital image;~~ and

code for storing the classification of the digital image as metadata associated with the digital image.

60. (Previously presented) A computer readable medium according to claim 59, wherein:

(i) the image is classified as a far-shot if the size of the located face is substantially less than the size of the image;

(ii) the image is classified as a close-up where the size of the located face substantially corresponds with the size of the image; and

(iii) the image is classified as an extreme close-up where only a part of the located face appears within the image.

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61. (Previously presented) A computer readable medium according to claim 60, wherein said classifying comprises associating a size of the located face with a set of predetermined thresholds for a size of a human face image.

62. (Currently Amended) A computer readable medium according to claim 61, wherein:

(i) the image is classified as a far-shot if the image contains a face and the size of the located face is below a first predetermined threshold compared to the size of the image;

(ii) the image is classified as an extreme close-up if the size of the located face is above a second predetermined threshold compared to the size of the image;

(iii) the image is classified as a close-up if the size of the located face is below the second predetermined threshold and above a third predetermined threshold compared to the size of the image; and

(iv) the image is classified as is a medium shot if the size of the located face is greater than the first predetermined threshold and less than the third predetermined threshold.

63. (Previously presented) A computer readable medium according to claim 59, wherein said analyzing comprises interpreting information provided with said image.

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64. (Previously presented) A computer readable medium according to claim 63, wherein the image comprises a frame of a digital video sequence of images.

65. (Previously presented) A computer readable medium according to claim 64, wherein the information is associated with other frames of the sequence.

66. (Previously presented) A computer readable medium according to claim 59, wherein said analyzing comprises detecting one or more regions of the image at which skin colored pixels are located in order to locate the face.

67. (Previously presented) A computer readable medium according to claim 59, wherein said determining approximates the size of the located face by a height and width of a bounding rectangle that encloses the face.

68. (Previously presented) A computer readable medium according to claim 59, further comprising:

code for analyzing the image for the presence of a human face;

code for determining a position of the located face with respect to a frame of the image; and

code for classifying the image based on the relative position of the face with respect to the image frame.

69. (Previously presented) A computer readable medium according to claim 68, wherein:

- (i) the image is classified as a high-shot if the position of the located face is substantially toward a bottom of the image frame;
- (ii) the image is classified as an eye-level shot where the position of the face substantially corresponds with a center of the image frame;
- (iii) the image is classified as a low shot where the position of the located face is substantially toward a top of the image frame;
- (iv) the image is classified as a left shot where the position of the located face is substantially toward a right hand side of the image frame; and
- (v) the image is classified as a right shot where the position of the located face is substantially toward a left hand side of the image frame.

70. (Previously presented) A computer readable medium according to claim 69, wherein said analyzing comprises interpreting information provided with the image.

71. (Previously presented) A computer readable medium according to claim 69, wherein the image comprises a frame of a digital video sequence of images.

72. (Previously presented) A computer readable medium according to claim 71, wherein the information is associated with other frames of the sequence.

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73. (Previously presented) A computer readable medium according to claim 72, further comprising:

- code for detecting an edge within the image;
- code for determining an angle of inclination between the edge and an axis of the image frame; and
- code for classifying the image as a Dutch shot where the angle of inclination is between predetermined angles of inclination.

74. (Previously presented) A computer readable medium according to claim 73, wherein the predetermined angles of inclination comprise 30 and 60 degrees.

75. (Previously presented) A computer readable medium according to claim 74, further comprising:

- code for analyzing the image for the presence of a predetermined non-human component;
- code for assessing the predetermined component with respect to at least one further criterion; and
- where that further criterion is met, classifying the image based upon the presence of the predetermined component.

76. (Previously presented) A computer readable medium according to claim 75, wherein the predetermined component comprises a color of a distinct region of the image.

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77. (Previously presented) A computer readable medium according to claim 76, wherein the criterion comprises at least a relative motion of the predetermined component within the image.

78. (Previously presented) A computer readable medium incorporating a computer program product for processing an input sequence of images, comprising:  
code for classifying each image of the sequence using the computer program product of claim 77; and  
code for editing the sequence using the classification to form an output sequence of images.

79. (Previously presented) A computer readable medium according to claim 78, wherein said editing comprises applying an edit function to each image of the input sequence, those ones of the images not satisfying the edit function being omitted from the output sequence.

80. (Previously presented) A computer readable medium according to claim 79, wherein said editing comprises establishing an editing template for the sequence, each edit function forming a component of the template and corresponding to one of the image classifications.

81. (Previously presented) A computer readable medium according to claim 80, wherein the edit function comprises at least one effect for application to the



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image, the effect being selected from the group consisting of visual effects and audible effects.

82. (Previously presented) A computer readable medium according to claim 81, wherein the visual effects are selected from the group consisting of reproduction speed variation, zooming, blurring, and color variation.

83. (Previously presented) An edited sequence of images formed through implementation of a series of images according to any one of claims 1, 16, 37, 45 and 59.

84. (Currently amended) A method for automated classification of a digital image, said method comprising the steps of:

analyzing the digital image for the presence of a predetermined object;  
determining a size of the located predetermined object with respect to a size of the image;

classifying the digital image according to one of at least three ~~a number of~~  
shot types based on the relative size of the predetermined object with respect to the image  
~~independently of a distance measure between the predetermined object and a capture~~  
~~device that recorded the digital image; and~~

storing the classification of the digital image as metadata associated with the  
digital image.

85. (Previously presented) A method according to claim 84, wherein the predetermined object is a motor vehicle or a building.

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86. (Currently amended) A method for automated classification of a digital image, said method comprising the steps of:

analyzing the digital image for the presence of a predetermined object;

determining a position of the located predetermined object with respect to a frame of the image;

classifying the digital image according to one of at least three ~~a number of~~ shot types based on the relative position of the predetermined object with respect to the image frame ~~independently of a distance measure between the predetermined object and a capture device that recorded the digital image~~; and

storing the classification of the digital image as metadata associated with digital image.

87. (Previously presented) A method according to claim 86, wherein the predetermined object is a motor vehicle or a building.

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## REMARKS

This application has been carefully reviewed in light of the Office Action dated July 27, 2006. Claims 1 to 87 are pending in the application, with Claims 1, 16, 21, 33, 37, 42, 45, 59, 62, 84 and 86 having been amended. Claims 1, 16, 37, 45, 59, 84 and 86 are in independent form. Reconsideration and further examination are respectfully requested.

Claims 1 to 87 were rejected under 35 U.S.C. § 112, first paragraph, for allegedly failing to comply with the written description requirement. The expression of classifying the image “independently of a distance measure between the face and a capture device that recorded the digital image” has been removed from the claims.

Reconsideration and withdrawal of this rejection are therefore respectfully requested.

Claims 1 to 87 were rejected under 35 U.S.C. § 112, second paragraph, for alleged indefiniteness. The expression of classifying the image “independently of a distance measure between the face and a capture device that recorded the digital image” has been removed from the claims. Reconsideration and withdrawal of this rejection are therefore respectfully requested.

The drawings were objected to under 37 CFR 1.83(a) for allegedly not showing every feature of the invention specified in the claims. The expression of classifying the image “independently of a distance measure between the face and a capture device that recorded the digital image” has been removed from the claims.

Reconsideration and withdrawal of this objection is therefore respectfully requested.

In addition, objections were lodged against Figures 1A to 1G, 2A to 2C, 3A, 3B and 4A to 4E, with “PRIOR ART” legends being required. The Replacement Drawing

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Sheets attached hereto are believed to attend to such objection. Reconsideration and withdrawal are respectfully requested.

Claims 1 to 4, 6, 7, 11 to 17, 24 to 26, 29 to 33, 37, 39, 41 to 45, 51 to 55, 59, 63 to 68 and 83 to 87 were rejected under 35 U.S.C. § 103(a) over U.S. Patent No. 6,593,956 (Potts) in view of “A Statistical Approach to Scene Change Detection” (Sethi) and further in view of “Digital Document Metadata in Organizations: Roles, Analytical Approaches, and Future Research Directions” (Murphy); Claims 34 to 36 and 56 to 58 were rejected under 35 U.S.C. § 103(a) over Potts, Sethi and Murphy in view of U.S. Patent No. 6,324,545 (Morag); Claims 5/1, 5/2, 8/1, 8/2, 9/1, 9/2, 10/1, 10/2, 18/16, 18/17, 19/16, 19/17, 20/16, 20/17, 21/16, 21/17, 22/16, 22/17, 23/16, 23/17, 27, 28, 38, 40, 46 to 49, 50, 60 to 62 and 69 to 79 were rejected under 35 U.S.C. § 103(a) over Potts, Sethi and Murphy in view of “The ‘Grammar’ of Television and Film” (Chandler); and Claims 80 to 82 were rejected under 35 U.S.C. § 103(a) over Potts, Sethi, Murphy and Chandler in view of Morag. Reconsideration and withdrawal of these rejections are respectfully requested.

The present invention generally concerns automated classification of a digital image. According to one feature of the invention, the digital image is classified according to one of at least three shot types based on a relative size (or relative position) of a face (or predetermined object) with respect to the image (or image frame).

For example, page 8, lines 6 to 12 of the specification describes a representative embodiment in which a face is detected and, according to a rule which compares the size of the detected face to the overall size of the image, the particular image is then classified into one of three classes each corresponding to a particular shot type. Of

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course, it should be noted that the scope of the claims is not limited to this representative embodiment and/or the details at page 8, lines 6 to 12 of the specification.

Referring specifically to the claims, independent Claim 1 as amended is directed to a method for automated classification of a digital image. The method includes the steps of analyzing the digital image for the presence of a human face, and determining a size of the located face with respect to a size of the image. The method also includes the steps of classifying the digital image according to one of at least three shot types based on the relative size of the face with respect to the image, and storing the classification of the digital image as metadata associated with the digital image.

Independent Claims 37 and 59 as amended are respectively directed to an apparatus and computer readable medium which are seen to generally correspond with Claim 1.

Independent Claim 16 as amended is directed to a method for automated classification of a digital image. The method includes the steps of analyzing the digital image for the presence of a human face, and determining a position of the located face with respect to a frame of the image. The method also includes the steps of classifying the digital image according to one of at least three shot types based on the relative position of the face with respect to the image frame, and storing the classification of the digital image as metadata associated with the digital image.

Independent Claim 45 as amended is directed to an apparatus which is seen to generally correspond with Claim 16.

Independent Claim 84 as amended is directed to a method for automated classification of a digital image. The method includes the steps of analyzing the digital

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image for the presence of a predetermined object, and determining a size of the located predetermined object with respect to a size of the image. The method also includes the steps of classifying the digital image according to one of at least three shot types based on the relative size of the predetermined object with respect to the image, and storing the classification of the digital image as metadata associated with the digital image.

Independent Claim 86 as amended is directed to a method for automated classification of a digital image. The method includes the steps of analyzing the digital image for the presence of a predetermined object, and determining a position of the located predetermined object with respect to a frame of the image. The method also includes the steps of classifying the digital image according to one of at least three shot types based on the relative position of the predetermined object with respect to the image frame, and storing the classification of the digital image as metadata associated with digital image.

The applied art is not seen to disclose or to suggest the features of the invention of the subject application. In particular, Potts, Sethi, Murphy, Morag and Chandler are not seen to disclose or suggest at least the feature of classifying a digital image according to one of at least three shot types based on a relative size (or relative position) of a face (or predetermined object) with respect to the image (or image frame).

As understood by Applicant, Potts discloses that a video face location module 102 determines whether the size of the face segment corresponds to a default size of the image of a typical or preselected standard head given the camera range value. If the size of a face segment is less than the default image size at that range (or a scaled default image size at that range, such as 125% of the default image size), video face location module 102 determines that the face segment likely does not represent a face.

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Additionally, if the proportions of a face segment are not within a range for a typical head (for example, width to height ratio of 1.5), video face location module 102 determines the face segment likely does not represent a face. See Potts, column 10, lines 40 to 52.

As such, Potts is seen to classify images either containing or not containing a face. Other than classifying the image as being a “face” image, no further classification is seen to be obtained from this analysis.

Since Potts is merely seen to classify based on a “face” or “non-face”, Potts is not seen to disclose classifying a digital image according to one of at least three shot types. Accordingly, Potts is not seen to disclose or suggest classifying a digital image according to one of at least three shot types based on a relative size (or relative position) of a face (or predetermined object) with respect to the image (or image frame).

Sethi is not seen to compensate for the deficiencies of Potts. Sethi is seen to disclose that in order to perform accurate shot boundary detection, the knowledge of the shot type is essential. In addition, Sethi is seen to disclose that shot type classification necessarily depends upon the distance between the camera and the subject being recorded, eg. a person, a house, or an automobile. See Sethi, page 4, paragraph 3.

Although Sethi may be seen to disclose that knowledge of the shot type is essential to perform shot boundary detection, nothing in Sethi is seen to disclose how determination of that classification is performed. Accordingly, Sethi is not seen to disclose or suggest that a digital image is classified according to one of at least three shot types based on a relative size (or relative position) of a face (or predetermined object) with respect to the image (or image frame).

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In addition, Murphy, Morag and Chandler have been reviewed and are not seen to compensate for the deficiencies of Potts and Sethi.

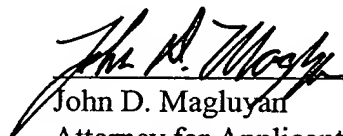
Accordingly, based on the foregoing amendments and remarks, independent Claims 1, 16, 37, 45, 59, 84 and 86 as amended are believed to be allowable over the applied references.

The other claims in the application are each dependent from the independent claims and are believed to be allowable over the applied references for at least the same reasons. Because each dependent claim is deemed to define an additional aspect of the invention, however, the individual consideration of each on its own merits is respectfully requested.

No other matters being raised, it is believed that the entire application is fully in condition for allowance, and such action is courteously solicited.

Applicant's undersigned attorney may be reached in our Costa Mesa, CA office at (714) 540-8700. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,

  
\_\_\_\_\_  
John D. Magluyan  
Attorney for Applicant  
Registration No. 56,867

FITZPATRICK, CELLA, HARPER & SCINTO  
30 Rockefeller Plaza  
New York, New York 10112-3800  
Facsimile: (212) 218-2200

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00169.001918.

PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:	)	
	:	Examiner: S. Ahmed
JULIE RAE KOWALD	)	
	:	Group Art Unit: 2624
Application No.: 09/730,573	)	
	:	
Filed: December 7, 2000	)	
	:	
For: VISUAL LANGUAGE	)	
CLASSIFICATION	:	
SYSTEM	)	November 27, 2006

Mail Stop Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

PETITION UNDER 37 C.F.R. § 1.136(a)

Sir:

Applicant petitions the Commissioner for Patents to extend the time for response to the Office Action dated July 27, 2006 for one month from October 27, 2006 to November 27, 2006.

I hereby certify that this correspondence is being deposited with the United States Postal Service as first-class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on:

November 27, 2006  
(Date of Deposit)

John D. Magluyan, Reg. No. 56,867  
(Name of Attorney for Applicant)

  
Signature

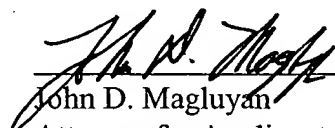
November 27, 2006  
Date of Signature

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Submitted herewith is a check for \$120.00 to cover the fee for the extension under 37 C.F.R. § 1.17. Any deficiency in or overpayment of this fee should be charged or credited to Deposit Account 06-1205. A duplicate copy of this petition is enclosed.

Applicant's undersigned attorney may be reached in our Costa Mesa, CA office at (714) 540-8700. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,

  
\_\_\_\_\_  
John D. Magluyan  
Attorney for Applicants  
Registration No. 56,867

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New York, New York 10112-3800  
Facsimile: (212) 218-2200

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00169.001918.

PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:	)	
	:	Examiner: S. Ahmed
JULIE RAE KOWALD	)	
	:	Group Art Unit: 2624
Application No.: 09/730,573	)	
	:	
Filed: December 7, 2000	)	
	:	
For: VISUAL LANGUAGE	)	
CLASSIFICATION SYSTEM	:	November 27, 2006

Mail Stop Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

LETTER TRANSMITTING FORMAL DRAWINGS

Sir:

Transmitted herewith are three sheets of formal drawings to be substituted for the corresponding drawing sheets of Figures 1A to 1G, 2A to 2C, 3A, 3B and 4A to 4E presently on file in the above-identified application.

The new drawing sheets incorporate the changes made in response to the Office Action dated July 27, 2006.

I hereby certify that this correspondence is being deposited with the United States Postal Service as first-class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on:

November 27, 2006  
(Date of Deposit)

John D. Magluyan, Reg. No. 56,867  
(Name of Attorney for Applicant)


  
Signature

November 27, 2006  
Date of Signature

# COPY

Applicant's undersigned attorney may be reached in our Costa Mesa, California office by telephone at (714) 540-8700. All correspondence should continue to be directed to our address given below.

Respectfully submitted,

  
\_\_\_\_\_  
John D. Magluyan  
Attorney for Applicant  
Registration No.: 56,867

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New York, New York 10112-3800  
Facsimile: (212) 218-2200

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*Mail Stop: Amendment*  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Date 11 / 27 / 2006  
Mo. Day Yr.

Atty. Docket 00169.001918

Application No. 09/730,573

Sir:

Kindly acknowledge receipt of the accompanying:

- FOHS-B-00
- ☒ Response to Official Action. *dated July 27, 2006*
  - ☐ Check for \$ \_\_\_\_\_ (claims fee)
  - ☒ Petition under 37 CFR 1.136 and Check for \$ 120.00
  - ☐ Notice of Appeal and Check for \$ \_\_\_\_\_
  - ☐ Information Disclosure Statement, PTO-1449 and \_\_\_\_\_
  - ☐ Claim for priority and certified copies of \_\_\_\_\_ priority applications
  - ☐ Issue fee transmittal and Check for \$ \_\_\_\_\_
  - ☒ Other (specify) *Letter Transmitting Formal Drawings; 3 Drawing Sheets*
- by placing your receiving date stamp hereon and mailing or returning to deliverer.

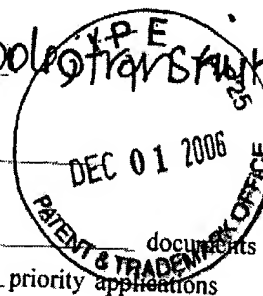
Atty. JJA/CE

Due Date 11 / 27 / 2006  
Mo. Day Yr.

37 CFR 1.8 ☒

37 CFR 1.10 ☐

By Hand ☐



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Replacement Sheet

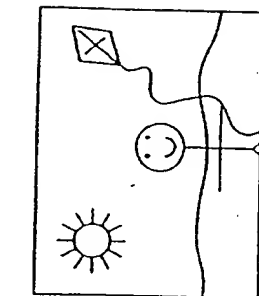


FIG. 1A  
(PRIOR ART)

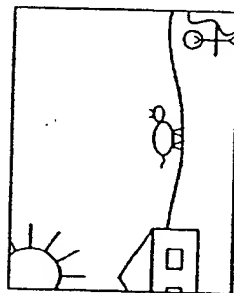


FIG. 1B  
(PRIOR ART)

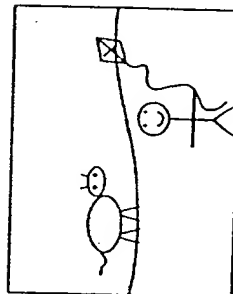


FIG. 1C  
(PRIOR ART)

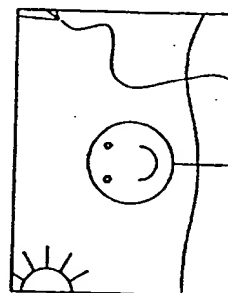


FIG. 1E  
(PRIOR ART)

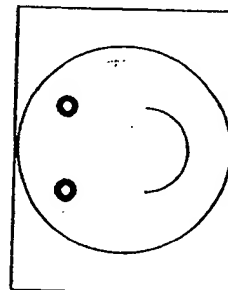


FIG. 1F  
(PRIOR ART)

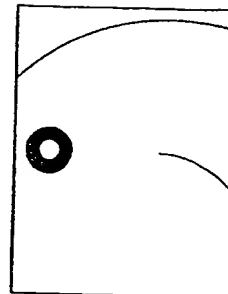


FIG. 1G  
(PRIOR ART)

FIG. 1D  
(PRIOR ART)

FIG. 1D  
(PRIOR ART)

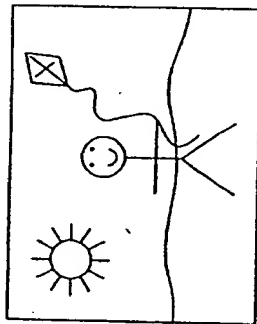


FIG. 2A  
(PRIOR ART)

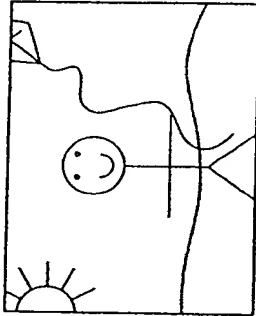


FIG. 2B  
(PRIOR ART)

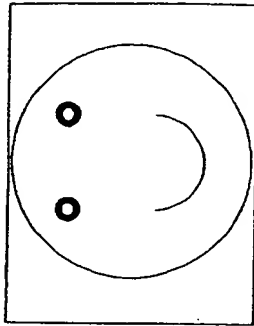


FIG. 2C  
(PRIOR ART)

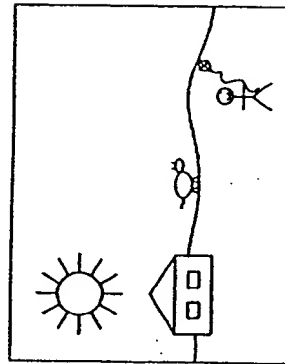
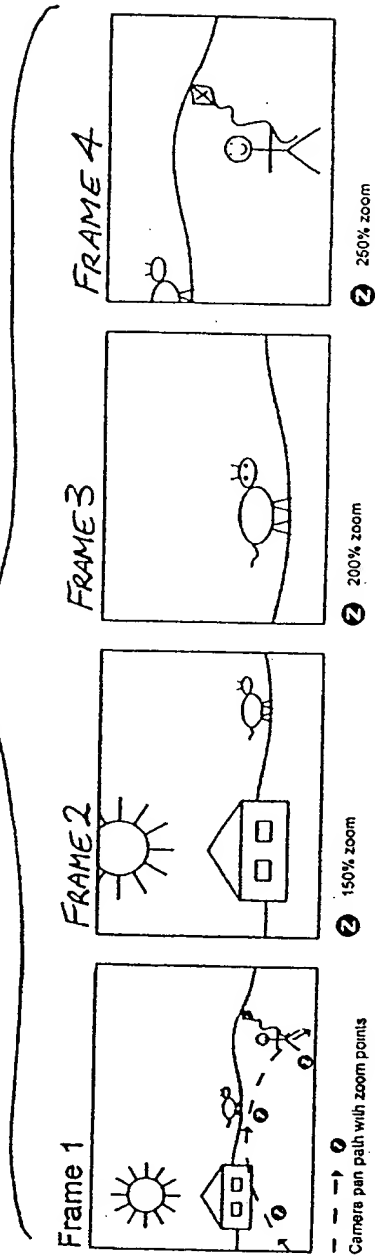


FIG. 3A  
(PRIOR ART)

FIG. 3B  
(PRIOR ART)



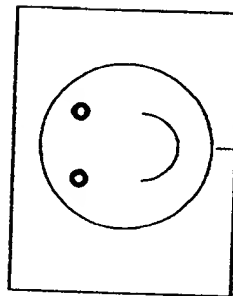


FIG. 4A  
(PRIOR ART)

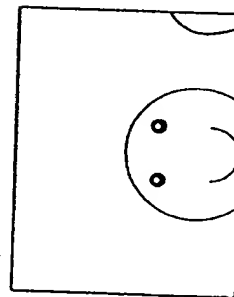


FIG. 4B  
(PRIOR ART)

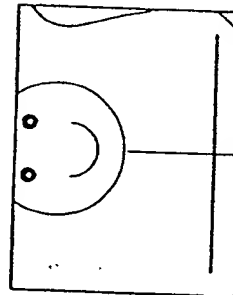


FIG. 4C  
(PRIOR ART)

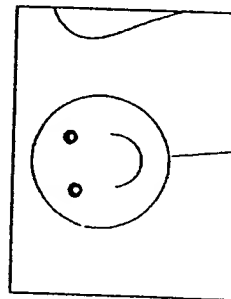


FIG. 4D  
(PRIOR ART)

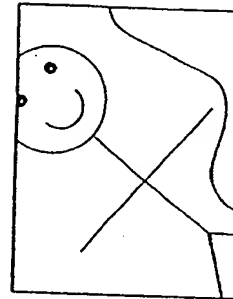


FIG. 4E  
(PRIOR ART)